

**AMENDMENTS TO THE CLAIMS**

Please add new claims 20-23. Please amend claims 1-3, 5, 9-11, and 19 as follows:

*SUB B*  
1. (Currently Amended) A method of determining inventory levels of parts for a plurality of stocking locations, said method comprising ~~the steps of~~:

4 providing data for a plurality of customer locations, unit price  
5 of said parts, request rates for each of said parts for each of  
6 said customer locations, handling costs for each of said stocking  
7 locations, and travel time and transportation cost between said  
8 stocking locations;

9 specifying a parts procurement time performance measure for  
10 transfer of said parts from said plurality of stocking locations  
11 to said plurality of customer locations;

12 entering said data and said performance measure into an  
13 optimization computer program;

14 computing said inventory levels of said parts for said plurality  
15 of stocking locations using said optimization computer program;  
16 and

17 ordering sufficient numbers of said parts to maintain said  
18 inventory levels at said plurality of stocking locations, wherein  
19 said inventory levels are such that said performance measure is  
20 met.

1 2. (Currently Amended) The method of claim 1, wherein said data  
2 for a said plurality of customer locations includes travel time  
3 and cost to transfer a part from each of said plurality of  
4 stocking locations to each of said customer locations.

1 3. (Currently Amended) The method of claim 1, wherein said  
2 request rates ~~includes~~ include a probability distribution for one  
3 or more of said request rates.

1 4. (Original) The method of claim 3, wherein said probability  
2 distribution is a Poisson distribution.

1 5. (Currently Amended) The method of claim 1, wherein said part  
2 parts procurement time performance measure comprises the  
3 percentage of parts in said request rates which can be  
4 transferred from any said stocking location to each said  
5 respective said customer location within a pre-specified time.

1 6. (Original) The method of claim 5, wherein said parts are  
2 grouped by importance into a plurality of groups and said  
3 pre-specified time comprises a corresponding plurality of times.

1 7. (Original) The method of claim 6, wherein inventory levels are  
2 computed to minimize overall cost while meeting or exceeding said  
3 plurality of times.

1 8. (Original) The method of claim 1, wherein said optimization  
2 computer program is a mixed integer optimization program.

1 9. (Currently Amended) The method of claim 1, wherein said  
2 inventory levels are computed to meet a total inventory cost  
3 while maximizing the percentage of said parts in said request

4 rates which can be transferred from any said stocking location to  
5 each respective said customer location within said a  
6 pre-specified time.

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10. (Currently Amended) The method of claim 1, further comprising  
~~the step of~~ computing the estimated time for each part to be  
transferred from any said stocking location to each respective  
said customer location for each of said parts in said request  
rates.

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10. (Currently Amended) A computer implemented method of  
specifying parts inventory levels for a network of stocking  
locations, said method comprising ~~the steps of~~:

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providing data for a plurality of customer locations, unit price  
of said parts, request rates for each of said parts for each of  
said customer locations, handling costs for each of said stocking  
locations, and travel time and transportation cost between said  
stocking locations;

specifying a parts procurement time performance measure for  
transfer of said parts from said network of stocking locations to  
said plurality of customer locations;

formulating a mixed integer optimization model of said network;  
and

entering said model on a processor to solve said mixed integer  
model to obtain said inventory levels for each of said stocking  
locations in said network, wherein said inventory levels are such  
that said performance measure is met.

1 12. (Original) The method of claim 11, wherein said model  
2 includes a total inventory cost constraint.

1 13. (Original) The method of claim 11, wherein said inventory  
2 levels are solved to minimize overall cost while meeting or  
3 exceeding said parts procurement time performance measure.

1 14. (Withdrawn) A computer system for controlling inventory  
2 levels of parts for a plurality of stocking locations,  
3 comprising:

4 a processor;

5 one or more files on said computer system containing data for a  
6 plurality of customer locations, unit price of said parts,  
7 request rates for each of said parts for each of said customer  
8 locations, handling costs for each of said stocking locations,  
9 and travel time and transportation cost between said stocking  
10 locations;

11 means for computing on said processor a parts procurement time  
12 performance measure;

13 an optimization computer program on said processor for  
14 calculating said inventory levels of parts for said plurality of  
15 stocking locations; and

16 an ordering system on said computer system for maintaining said  
17 inventory levels at said plurality of stocking locations.

1 15. (Withdrawn) The system of claim 14, wherein said data for a  
2 plurality of customer locations includes travel time and cost to

3 transfer a part from each of said plurality of stocking locations  
4 to each of said customer locations.

1 16. (Withdrawn) The system of claim 14, wherein said request  
2 rates includes a probability distribution for one or more of said  
3 request rates.

1 17. (Withdrawn) The system of claim 14, further comprising a  
2 mixed integer model of said network.

1 18. (Withdrawn) The system of claim 17, wherein said model is  
2 formulated to minimize overall cost while meeting or exceeding a  
3 pre-specified parts procurement time performance measure.

1 19. (Currently Amended) A computer program product for  
2 instructing a processor to determine inventory levels of parts  
3 for a plurality of stocking locations, said computer program  
4 product comprising;

5 a computer readable medium;

6 first program instruction means for providing data for a  
7 plurality of customer locations, unit price of said parts,  
8 request rates for each of said parts for each of said customer  
9 locations, handling costs for each of said stocking locations,  
10 and travel time and transportation cost between said stocking  
11 locations;

12 second program instruction means for specifying a parts  
13 procurement time performance measure for transfer of said parts  
14 from said plurality of stocking locations to said plurality of  
15 customer locations;

16 third program instruction means for entering said data and said  
17 performance measure into an optimization computer program;

18 fourth program instruction means for computing said inventory  
19 levels of said parts for said plurality of stocking locations  
20 using said optimization computer program; and

21 fifth program instruction means for ordering sufficient numbers  
22 of said parts to maintain said inventory levels at said plurality  
23 of stocking locations, wherein said inventory levels are such  
24 that said performance measure is met; and wherein

25 all said program instruction means are recorded on said medium.

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1 20. (New) A method of determining inventory levels of parts for a  
2 plurality of stocking locations, said method comprising:

3 providing data for a plurality of customer locations, unit price  
4 of said parts, request rates for each of said parts for each of  
5 said customer locations, handling costs for each of said stocking  
6 locations, and travel time and transportation cost between said  
7 stocking locations;

8 specifying a parts procurement time performance measure, wherein  
9 said parts procurement time performance measure comprises the  
10 percentage of parts in said request rates which can be  
11 transferred from any said stocking location to each said  
12 respective customer location within a pre-specified time;

13 entering said data and said performance measure into an  
14 optimization computer program;

15 computing said inventory levels of said parts for said plurality  
16 of stocking locations using said optimization computer program;  
17 and

18 ordering sufficient numbers of said parts to maintain said  
19 inventory levels at said plurality of stocking locations.

*B*  
21. (New) The method of claim 20, wherein said parts are grouped  
22 by importance into a plurality of groups and said pre-specified  
23 time comprises a corresponding plurality of times.

*Alo*  
22. (New) The method of claim 21, wherein inventory levels are  
23 computed to minimize overall cost while meeting or exceeding said  
plurality of times.

23. (New) A method of determining inventory levels of parts for a  
plurality of stocking locations, said method comprising:

3 providing data for a plurality of customer locations, unit price  
4 of said parts, request rates for each of said parts for each of  
5 said customer locations, handling costs for each of said stocking  
6 locations, and travel time and transportation cost between said  
7 stocking locations;

8 specifying a parts procurement time performance measure;

9 entering said data and said performance measure into an  
10 optimization computer program;

11 computing said inventory levels of said parts for said plurality  
12 of stocking locations using said optimization computer program,  
13 wherein said inventory levels are computed to meet a total

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14 inventory cost while maximizing the percentage of said parts in  
15 said request rates which can be transferred from any said  
16 stocking location to each respective said customer location  
17 within a pre-specified time; and  
  
fl (S)  
18 ordering sufficient numbers of said parts to maintain said  
19 inventory levels at said plurality of stocking locations.

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